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19304 GSRS MISSILE NUMBER 1028 ROUND NUMBER V-28, 16 MAY 1979.(U)
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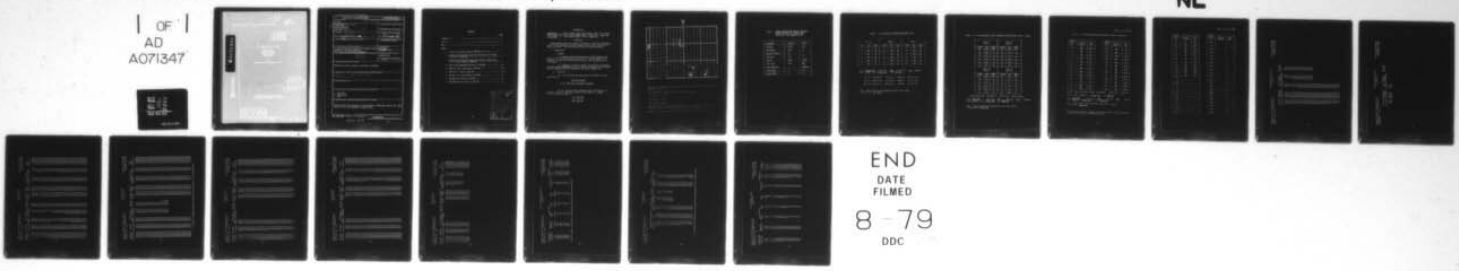

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1014	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19304 GSRS Missile Number 1028 Round No. V-28, 16 May 1979.		5. TYPE OF REPORT & PERIOD COVERED 6. PERFORMING ORG. REPORT NUMBER
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Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

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18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

1. Ballistics
2. Meteorology
3. Wind

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Meteorological data gathered for the launching of 19304 GSRS, Missile No. 1028, Round No. V-28, are presented in tabular form.

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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CONTENTS

INTRODUCTION

19304DT GSRS , Missile Number 1028 , Round Number V-28 , was launched from LC-33 , White Sands Missile Range (WSMR), New Mexico, at 1605 MDT, 16 May 1979 . The scheduled launch time was 1605 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

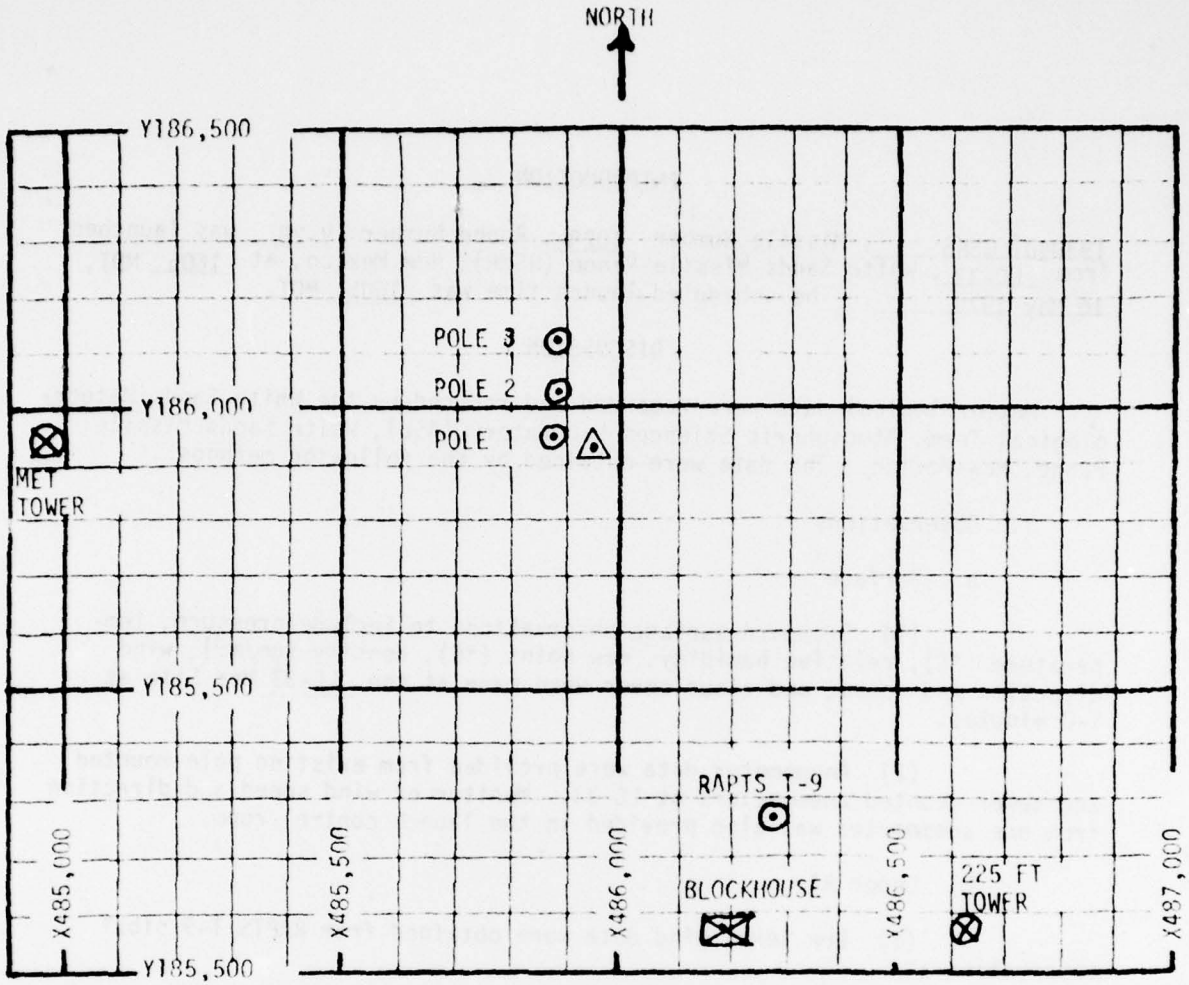
b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

SITE AND ALTITUDE
LC-33 1080 meters (30-meter increments)

(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 91,500 feet in 500-feet increments.

SITE AND TIME
SMR 1530 MST



1. MET TOWER - 4 Bendix Model T-120 Anemometers at 12 ft, 62 ft, 102 ft and 202 ft with E/A recorders.

2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.

   (a) Pole #1 - 38.7 ft

   (b) Pole #2 - 53.0 ft

   (c) Pole #3 - 83.6 ft

3. 225 FT WIND TOWER - 5 Bendix Model T-120 Anemometers at 35 ft, 88 ft, 128 ft, 168 ft and 200 ft with 5 X-Y visual indicators in Blockhouse.

4. RAPTS T-9 - Radar Automatic Pilot-Balloon Tracking System T-9 Radar

TABLE 1. SURFACE OBSERVATIONS TAKEN AT 1605 MDT, 16 MAY 1979 AT LC-33, 19304DT GSRS, MISSILE NO. 1028, ROUND NO. V-28.

ELEVATION	3977.30	FT/MSL
PRESSURE	876.6	MBS
TEMPERATURE	28.9	°C
RELATIVE HUMIDITY	24	%
DEW POINT	6.3	°C
DENSITY	1008	GM/M^3
WIND SPEED	Calm	MPH
WIND DIRECTION		DEGREES
CLOUD COVER	7	Cu
CLOUD COVER	2	Ci

TABLE 2. LC-33 FIXED POLE ANEMOMETER-MEASURED WINDS

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	100	08	-30	078	08	-30	106	05
-20	099	09	-20	072	08	-20	108	04
-10	102	09	-10	067	07	-10	105	04
0.0	099	08	0.0	074	07	0.0	110	04
+10	106	07	+10	077	07	+10	102	03

Type 19304DT GSRS, Missile No. 1028, Round No. V-28 launched from LC-33 on 16 May 1979 at 1605 MDT.

POLE #1 = X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL

POLE #2 = X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL

POLE #3 = X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL

NOTE: Wind directions are referenced to the firing azimuth _____ or true north true north.

TABLE 3. LC-33 METEOROLOGICAL TOWER ANEMOMETER-MEASURED WINDS (202 FT. TOWER)

LEVEL #1 12 ft.			LEVEL #2 62 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	090	05	-30	112	07
-20	100	06	-20	111	07
-10	100	05	-10	102	07
0.0	083	06	0.0	105	06
+10	078	05	+10	118	05
LEVEL #3 102 ft.			LEVEL #4 202 ft.		
T-TIME SEC	DIR DEG	SPEED MPH	T-TIME SEC	DIR DEG	SPEED MPH
-30	110	07	-30	115	06
-20	113	07	-20	111	06
-10	107	07	-10	110	06
0.0	106	06	0.0	120	06
+10	131	05	+10	108	07

WTSM Coordinates: X484,982.64 Y185,957.73 H3983.00 (base)

Type 19304 GSRS, Missile No. 1028, Round No. V-28 launched from LC-33 on 16 May 1979 at 1605 MDT.

NOTE: Wind directions are referenced to the firing azimuth or true north true north.

TABLE 4. PILOT-BALLOON-MEASURED WIND DATA* (30-METER INCREMENTS)

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
SFC	000	0.0
30	327	0.5
60	293	0.5
90	259	0.5
120	225	0.5
150	231	1.5
180	237	2.0
210	243	2.5
240	249	3.0
270	234	3.5
300	219	3.5
330	204	3.5
360	188	3.5

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
390	192	6.0
420	195	8.5
450	198	11.0
480	201	13.0
510	198	12.5
540	195	12.0
570	192	11.5
600	188	10.5
630	181	11.5
660	173	12.5
690	165	13.5
720	157	14.5
750	164	14.5

Release Point Coordinates (WSTM): X486,037.24 Y486,037.24 H3977.30

Released from LC-33 on 16 May 1979 at 1605 MDT.

Type 19304 GSRS, Missile No. 1028, Round No. B-28 launched from LC-33 on 16 May 1979 at 1605 MDT.

NOTE: Wind directions are referenced to the firing azimuth or true north true north.

*These data are manually computer, non-quality assured, quick-look data and therefore are subject to computational errors.

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
780	171	14.5
810	178	14.5
840	185	14.0
870	181	14.0
900	177	13.5
930	173	13.0
960	169	12.5
990	167	12.5
1020	165	12.0
1050	163	12.0
1080	160	11.5
1110		
1140		
1170		
1200		
1230		
1260		
1290		
1320		
1350		
1380		
1410		

HEIGHT METERS AGL	DIRECTION DEGREES	SPEED MPH
1440		
1470		
1500		
1530		
1560		
1590		
1620		
1650		
1680		
1710		
1740		
1770		
1800		
1830		
1860		
1890		
1920		
1950		
1980		
2010		
2040		
2070		

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
ASCENSION NO. 120

SIGNIFICANT LEVEL DATA
1360060120
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
873.9	3997.3	29.0	5.8	23.0
847.4	4890.1	25.4	2.2	22.0
771.0	7575.2	17.2	1.2	34.0
700.0	10247.4	9.5	-.1	51.0
668.0	11515.5	5.6	-1.8	59.0
597.0	14495.4	-2.5	-5.8	78.0
558.9	16207.7	-5.5	-15.0	47.0
554.6	16406.9	-6.0	-12.1	62.0
530.2	17559.4	-9.0	-18.7	45.0
500.0	19042.6	-12.5	-31.8	18.0
486.7	19718.6	-13.3	-33.1	17.0
471.4	20515.3	-15.5	-18.6	77.0
467.6	20716.2	-16.0	-28.2	34.0
452.0	21555.2	-17.4	-19.3	85.0
400.0	24533.8	-23.5	-26.0	80.0
380.6	25724.7	-26.0	-33.7	48.0
373.8	26153.6	-26.7	-44.8	16.0
347.6	27866.3	-30.7	-37.5	51.0
316.0	30071.2	-35.8	-42.8	48.0
300.0	31252.1	-39.2	-46.0	48.0
275.0	33197.1	-43.6	-49.6	51.0
250.0	35281.8	-49.2		
217.2	38268.6	-56.9		
200.0	39984.4	-58.4		
189.0	41157.3	-58.3		
176.2	42599.2	-62.0		
159.4	44663.7	-57.5		
150.0	45933.0	-56.3		
143.6	46848.4	-55.2		
132.6	48513.4	-58.5		
121.8	50272.6	-59.1		
111.8	52040.2	-60.1		
100.0	54318.3	-63.5		
84.4	57718.6	-68.0		
70.0	61452.2	-65.5		
65.2	62890.9	-62.0		
57.2	65564.9	-62.0		
50.0	68337.0	-58.4		
47.0	69628.5	-56.6		
37.0	74653.2	-55.8		

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
ASCENSION NO. 120

SIGNIFICANT LEVEL DATA
1360060120
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
30.0	79111.8	-51.5		
20.0	87957.6	-44.6		
17.0	91553.4	-45.4		

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
ASCENSION NO. 120

UPPER AIR DATA
1360060120
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	873.9	29.0	5.8	23.0	1003.5	678.5	160.0	6.0	1.000262
4000.0	873.8	29.0	5.8	23.0	1003.5	678.5	160.1	6.0	1.000262
4500.0	858.9	27.0	3.7	22.4	993.4	676.1	173.8	7.2	1.000255
5000.0	844.1	25.1	2.2	22.5	982.9	673.8	183.2	8.7	1.000250
5500.0	829.4	23.5	2.2	24.7	970.7	672.1	189.8	10.4	1.000247
6000.0	814.9	22.0	2.1	27.0	958.7	670.4	191.5	11.6	1.000245
6500.0	800.7	20.5	2.0	29.2	946.8	668.7	190.1	12.3	1.000242
7000.0	786.8	19.0	1.7	31.4	935.2	666.9	190.4	11.4	1.000239
7500.0	773.0	17.4	1.3	33.7	923.7	665.2	191.7	9.8	1.000236
8000.0	759.3	16.0	1.2	36.7	911.8	663.5	195.5	9.3	1.000233
8500.0	745.6	14.5	1.1	39.9	899.9	661.9	200.3	9.2	1.000231
9000.0	732.3	13.1	.8	43.1	888.2	660.2	201.5	9.3	1.000228
9500.0	719.2	11.7	.5	46.2	876.7	658.6	202.8	9.4	1.000225
10000.0	706.3	10.2	.1	49.4	865.4	656.9	207.5	8.9	1.000222
10500.0	693.5	8.7	-.4	52.6	854.3	655.1	212.7	8.3	1.000219
11000.0	680.8	7.2	-1.1	55.7	843.4	653.3	218.7	7.7	1.000215
11500.0	668.4	5.6	-1.7	58.9	832.6	651.5	224.7	7.9	1.000212
12000.0	655.9	4.3	-2.3	62.1	821.2	649.9	229.6	8.5	1.000208
12500.0	643.7	2.9	-2.9	65.3	809.9	648.2	231.5	9.7	1.000205
13000.0	631.6	1.6	-3.6	68.5	798.7	646.6	228.7	10.6	1.000201
13500.0	619.8	.2	-4.3	71.7	787.8	645.0	224.4	11.3	1.000198
14000.0	608.3	-1.2	-5.0	74.8	777.0	643.3	219.5	11.9	1.000195
14500.0	596.9	-2.5	-5.8	77.9	766.4	641.7	214.6	12.3	1.000191
15000.0	585.5	-3.4	-8.3	68.9	754.5	640.5	209.4	12.6	1.000185
15500.0	574.3	-4.3	-10.9	59.8	742.8	639.4	206.6	13.0	1.000179
16000.0	563.4	-5.1	-13.7	50.8	731.3	638.2	206.0	13.4	1.000174
16500.0	552.6	-6.2	-12.6	60.6	720.1	637.0	205.9	14.0	1.000173
17000.0	541.9	-7.5	-15.4	53.3	709.8	635.3	206.4	14.8	1.000168
17500.0	531.4	-8.8	-18.4	45.9	699.7	633.7	205.9	15.5	1.000164
18000.0	521.0	-10.0	-21.9	37.0	689.3	632.2	204.4	16.0	1.000159
18500.0	510.8	-11.2	-26.1	27.9	679.1	630.7	202.7	16.4	1.000155
19000.0	500.8	-12.4	-31.3	18.8	668.9	629.2	200.5	16.7	1.000151
19500.0	491.0	-13.0	-32.7	17.3	657.4	628.4	198.1	17.4	1.000149
20000.0	481.2	-14.1	-25.2	38.2	646.7	627.2	195.1	19.2	1.000148
20500.0	471.7	-15.5	-18.7	75.8	637.0	625.7	195.4	20.3	1.000150
21000.0	462.3	-16.5	-24.2	51.3	626.9	624.4	199.1	20.7	1.000145
21500.0	453.0	-17.3	-19.7	81.6	616.2	623.5	203.9	19.9	1.000145
22000.0	443.8	-18.3	-20.3	84.3	606.1	622.2	210.0	18.6	1.000142
22500.0	434.8	-19.3	-21.4	83.4	596.2	621.0	215.0	18.0	1.000139
23000.0	426.0	-20.4	-22.5	82.6	586.5	619.7	219.6	17.6	1.000137

UPPER AIR DATA
1360060120
S M R

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
ASCENSION NO. 120

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	417.3	-21.4	-23.7	81.7	577.0	618.4	221.3	18.2	1.000134
24000.0	408.9	-22.4	-24.8	80.9	567.6	617.1	222.2	19.1	1.000131
24500.0	400.6	-23.4	-25.9	80.1	558.4	615.8	221.2	19.9	1.000129
25000.0	392.3	-24.5	-28.7	67.5	549.3	614.5	220.2	20.7	1.000126
25500.0	384.2	-25.5	-32.1	54.0	540.3	613.2	221.3	21.6	1.000123
26000.0	376.2	-26.4	-39.6	27.5	531.2	612.0	222.8	22.8	1.000120
26500.0	368.3	-27.5	-42.2	23.1	522.3	610.6	224.6	24.6	1.000117
27000.0	360.6	-28.7	-39.7	33.3	513.8	609.2	226.1	28.3	1.000116
27500.0	353.0	-29.8	-38.2	43.5	505.4	607.7	224.8	30.9	1.000114
28000.0	345.6	-31.0	-37.8	50.8	497.1	606.3	221.7	32.8	1.000112
28500.0	338.2	-32.2	-39.0	50.1	488.8	604.8	216.8	34.1	1.000110
29000.0	331.0	-33.3	-40.2	49.5	480.7	603.4	213.3	36.7	1.000108
29500.0	323.9	-34.5	-41.4	48.8	472.7	601.9	211.3	39.8	1.000106
30000.0	317.0	-35.6	-42.6	48.1	464.8	600.4	212.6	41.5	1.000104
30500.0	310.1	-37.0	-44.0	48.0	457.4	598.7	214.1	41.9	1.000103
31000.0	303.3	-38.5	-45.3	48.0	450.2	596.8	216.4	40.5	1.000101
31500.0	296.7	-39.8	-46.4	48.4	442.8	595.2	219.2	40.2	1.000099
32000.0	290.1	-40.9	-47.4	49.2	435.1	593.7	222.0	40.5	1.000097
32500.0	283.7	-42.0	-48.3	49.9	427.6	592.3	225.0	42.7	1.000096
33000.0	277.4	-43.2	-49.2	50.7	420.2	590.8	227.6	44.6	1.000094
33500.0	271.2	-44.4	-51.7	43.6**	413.0	589.2	229.6	45.5	1.000092
34000.0	265.1	-45.8	-55.6	31.4**	406.1	587.5	230.7	46.0	1.000091
34500.0	259.1	-47.1	-60.7	19.1**	399.3	585.7	230.2	45.8	1.000089
35000.0	253.2	-48.4	-69.2	6.9**	392.6	584.0	229.5	45.5	1.000087
35500.0	247.4	-49.8			385.9	582.3	228.2	44.7	1.000086
36000.0	241.7	-51.1			379.1	580.6	226.8	44.0	1.000084
36500.0	236.1	-52.3			372.4	578.9	226.6	42.8	1.000083
37000.0	230.6	-53.6			365.9	577.2	226.6	41.5	1.000081
37500.0	225.2	-54.9			359.5	575.5	228.9	40.3	1.000080
38000.0	220.0	-56.2			353.2	573.8	232.0	39.2	1.000079
38500.0	214.8	-57.1			346.3	572.6	235.3	41.7	1.000077
39000.0	209.7	-57.5			338.8	572.0	238.3	45.4	1.000075
39500.0	204.7	-58.0			331.4	571.5	239.0	49.8	1.000074
40000.0	199.8	-58.4			324.2	570.9	239.1	54.5	1.000072
40500.0	195.1	-58.4			316.4	571.0	238.9	55.1	1.000070
41000.0	190.4	-58.3			308.8	571.0	238.7	54.8	1.000069
41500.0	185.9	-59.2			302.6	569.9	239.2	51.7	1.000067
42000.0	181.4	-60.5			297.1	568.2	240.0	48.3	1.000066
42500.0	177.1	-61.7			291.8	566.4	241.3	45.8	1.000065
43000.0	172.8	-61.1			283.9	567.3	242.9	43.8	1.000063

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
ASCENSION NO. 120

UPPER AIR DATA
1360060120
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	168.7	-60.0			275.7	568.7	244.8	42.2	1.000061
44000.0	164.6	-58.9			267.7	570.2	246.7	41.3	1.000060
44500.0	160.7	-57.9			260.0	571.6	248.8	40.6	1.000058
45000.0	156.9	-57.2			253.0	572.5	251.4	41.1	1.000056
45500.0	153.1	-56.7			246.5	573.1	254.0	41.6	1.000055
46000.0	149.5	-56.2			240.1	573.8	254.6	42.2	1.000053
46500.0	146.0	-55.6			233.8	574.6	255.2	42.7	1.000052
47000.0	142.6	-55.5			228.2	574.7	255.2	42.2	1.000051
47500.0	139.2	-56.5			223.8	573.4	254.9	41.3	1.000050
48000.0	135.9	-57.5			219.5	572.1	254.9	40.8	1.000049
48500.0	132.7	-58.5			215.3	570.8	255.3	41.0	1.000048
49000.0	129.5	-58.7			210.4	570.5	255.7	41.2	1.000047
49500.0	126.4	-58.8			205.5	570.3	255.6	41.3	1.000046
50000.0	123.4	-59.0			200.6	570.1	255.5	41.4	1.000045
50500.0	120.5	-59.2			196.2	569.8	254.0	40.7	1.000044
51000.0	117.6	-59.5			191.7	569.4	251.5	39.4	1.000043
51500.0	114.8	-59.8			187.4	569.0	248.9	38.3	1.000042
52000.0	112.0	-60.1			183.1	568.7	246.4	37.1	1.000041
52500.0	109.3	-60.8			179.3	567.7	243.7	36.1	1.000040
53000.0	106.7	-61.5			175.6	566.7	243.9	35.9	1.000039
53500.0	104.1	-62.3			172.0	565.7	244.7	35.9	1.000038
54000.0	101.6	-63.0			168.4	564.7	245.5	35.7	1.000038
54500.0	99.1	-63.7			164.9	563.8	247.1	33.9	1.000037
55000.0	96.7	-64.4			161.3	562.9	248.9	32.2	1.000036
55500.0	94.3	-65.1			157.8	562.0	251.2	29.2	1.000035
56000.0	92.0	-65.7			154.4	561.1	254.6	24.9	1.000034
56500.0	89.7	-66.4			151.1	560.2	259.3	20.8	1.000034
57000.0	87.5	-67.0			147.9	559.3	259.9	19.6	1.000033
57500.0	85.3	-67.7			144.7	558.4	260.4	18.6	1.000032
58000.0	83.2	-67.8			141.2	558.3	262.4	17.6	1.000031
58500.0	81.2	-67.5			137.5	558.7	266.2	16.9	1.000031
59000.0	79.2	-67.1			133.8	559.2	270.4	16.2	1.000030
59500.0	77.2	-66.8			130.3	559.6	278.7	13.5	1.000029
60000.0	75.3	-66.5			126.9	560.1	291.7	10.9	1.000028
60500.0	73.4	-66.1			123.6	560.5	307.5	9.0	1.000028
61000.0	71.6	-65.8			120.3	561.0	318.1	7.3	1.000027
61500.0	69.8	-65.4			117.1	561.5	334.3	6.0	1.000026
62000.0	68.1	-64.2			113.6	563.2	348.2	4.9	1.000025
62500.0	66.5	-63.0			110.2	564.8	2.1	3.8	1.000025
63000.0	64.9	-62.0			107.0	566.1	24.1	3.1	1.000024

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
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UPPER AIR DATA
1360060120
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GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63500.0	63.3	-62.0			104.4	566.1	64.0	2.1	1.000023
64000.0	61.8	-62.0			101.9	566.1	113.7	2.7	1.000023
64500.0	60.3	-62.0			99.4	566.1	133.2	3.8	1.000022
65000.0	58.8	-62.0			97.0	566.1	136.4	3.2	1.000022
65500.0	57.4	-62.0			94.7	566.1	141.5	2.5	1.000021
66000.0	56.0	-61.4			92.2	566.9	152.1	1.9	1.000021
66500.0	54.7	-60.8			89.7	567.7	173.3	1.5	1.000020
67000.0	53.4	-60.1			87.3	566.6	203.1	1.4	1.000019
67500.0	52.1	-59.5			84.9	569.5	210.3	2.1	1.000019
68000.0	50.8	-58.8			82.6	570.3	208.2	3.0	1.000018
68500.0	49.6	-58.2			80.4	571.2	207.1	4.0	1.000018
69000.0	48.4	-57.5			78.2	572.1	204.4	4.1	1.000017
69500.0	47.3	-56.8			76.1	573.1	201.0	3.9	1.000017
70000.0	46.2	-56.5			74.3	573.4	197.3	3.8	1.000017
70500.0	45.1	-56.5			72.5	573.5	177.8	2.4	1.000016
71000.0	44.0	-56.4			70.8	573.6	120.8	1.7	1.000016
71500.0	43.0	-56.3			69.1	573.7	78.3	3.0	1.000015
72000.0	42.0	-56.2			67.4	573.8	64.1	4.2	1.000015
72500.0	41.0	-56.1			65.8	573.9	56.7	5.6	1.000015
73000.0	40.0	-56.1			64.2	574.0	52.2	7.0	1.000014
73500.0	39.1	-56.0			62.7	574.1	56.5	9.5	1.000014
74000.0	38.2	-55.9			61.2	574.2	60.7	12.4	1.000014
74500.0	37.3	-55.8			59.7	574.3	63.4	15.3	1.000013
75000.0	36.4	-55.5			58.3	574.8	67.1	17.3	1.000013
75500.0	35.6	-55.0			56.8	575.4	72.6	18.3	1.000013
76000.0	34.7	-54.5			55.3	576.1	77.4	19.4	1.000012
76500.0	33.9	-54.0			53.9	576.7	82.0	20.2	1.000012
77000.0	33.1	-53.5			52.6	577.3	87.9	19.1	1.000012
77500.0	32.4	-53.1			51.2	578.0	94.5	18.3	1.000011
78000.0	31.6	-52.6			49.9	578.6	101.6	17.7	1.000011
78500.0	30.9	-52.1			48.7	579.2	102.5	18.0	1.000011
79000.0	30.2	-51.6			47.4	579.9	102.2	18.5	1.000011
79500.0	29.5	-51.2			46.3	580.4	102.0	18.9	1.000010
80000.0	28.8	-50.8			45.1	580.9	102.3	19.8	1.000010
80500.0	28.2	-50.4			44.0	581.4	102.9	20.9	1.000010
81000.0	27.5	-50.0			43.0	581.9	103.4	22.1	1.000010
81500.0	26.9	-49.6			41.9	582.4	103.7	22.8	1.000009
82000.0	26.3	-49.2			40.9	582.9	103.6	22.3	1.000009
82500.0	25.7	-48.9			39.9	583.4	103.4	21.7	1.000009
83000.0	25.1	-48.5			38.9	584.0	103.3	21.2	1.000009

STATION ALTITUDE 3997.30 FEET MSL
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GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
83500.0	24.5	-48.1			38.0	584.5	105.9	18.7	1.000008
84000.0	24.0	-47.7			37.0	585.0	109.3	16.3	1.000008
84500.0	23.4	-47.3			36.1	585.5	113.9	13.9	1.000008
85000.0	22.9	-46.9			35.3	586.0	114.7	13.4	1.000008
85500.0	22.4	-46.5			34.4	586.5	113.8	13.4	1.000008
86000.0	21.9	-46.1			33.6	587.0	112.8	13.5	1.000007
86500.0	21.4	-45.7			32.8	587.5	106.6	13.8	1.000007
87000.0	20.9	-45.3			32.0	588.0	95.3	14.9	1.000007
87500.0	20.4	-45.0			31.2	588.5	85.9	16.5	1.000007
88000.0	20.0	-44.6			30.4	588.9	79.1	18.1	1.000007
88500.0	19.5	-44.7			29.8	588.8	76.9	18.4	1.000007
89000.0	19.1	-44.8			29.1	588.7	74.8	18.8	1.000006
89500.0	18.7	-44.9			28.5	588.5	72.8	19.1	1.000006
90000.0	18.2	-45.1			27.9	588.4			1.000006
90500.0	17.8	-45.2			27.2	588.2			1.000006
91000.0	17.4	-45.3			26.6	588.1			1.000006
91500.0	17.0	-45.4			26.1	587.9			1.000006

MRN SIGNIFICANT LEVEL DATA
136006O120
S M R

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
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GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	DEW PT DEP DEG C	TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
2777.	9999.**	9999.**	-9999.**	-9999.**	99	-45.4	1.700+1
2668.	79.	9.	-2.	-9.	99	-44.6	2.000+1
2401.	102.	10.	2.	-9.	99	-51.5	3.000+1
2266.	64.	8.	-4.	-8.	99	-55.8	3.700+1
2114.	200.	2.	2.	1.	99	-56.6	4.700+1
2075.	207.	2.	2.	1.	99	-58.4	5.000+1
1991.	142.	1.	1.	-1.	99	-62.0	5.720+1
1910.	19.	2.	-2.	-1.	99	-62.0	6.520+1
1867.	332.	3.	-3.	1.	99	-65.5	7.000+1
1754.	261.	9.	2.	9.	99	-68.0	8.440+1
1651.	247.	18.	7.	16.	99	-63.5	1.000+2

** WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
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MANDATORY LEVELS
136006O120
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES	CENTIGRADE		DEGREES(TN)	KNOTS
850.0	4798.	25.8	2.5	22.	179.9	8.1
800.0	6530.	20.4	1.9	29.	190.0	12.4
750.0	8339.	15.0	1.1	39.	198.7	9.2
700.0	10237.	9.5	-.1	51.	209.9	8.6
650.0	12235.	3.6	-2.6	64.	230.6	9.0
600.0	14347.	-2.1	-5.6	77.	216.1	12.2
550.0	16600.	-6.6	-13.2	59.	206.0	14.2
500.0	19016.	-12.5	-31.8	18.	200.3	16.8
450.0	21631.	-17.6	-19.5	85.	205.7	19.5
400.0	24493.	-23.5	-26.0	80.	221.2	19.9
350.0	27655.	-30.3	-37.8	48.	223.6	31.6
300.0	31190.	-39.2	-46.0	48.	217.7	40.2
250.0	35205.	-49.2			228.8	45.1
200.0	39888.	-58.4			239.1	54.2
175.0	42630.	-61.7			242.0	44.9
150.0	45810.	-56.3			254.5	42.1
125.0	49593.	-58.9			255.6	41.4
100.0	54151.	-63.5			246.4	34.6
80.0	58588.	-67.3			268.3	16.6
70.0	61242.	-65.5			331.3	6.1
60.0	64358.	-62.0			133.5	3.8
50.0	68080.	-58.4			207.5	3.6
40.0	72723.	-56.1			52.4	0.9
30.0	78774.	-51.5			102.2	18.5
25.0	82685.	-48.4			103.3	21.2
20.0	87545.	-44.6			79.5	18.0

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

MRN MANDATORY LEVELS
1360060120
S M R

STATION ALTITUDE 3997.30 FEET MSL
16 MAY 79 1530 HRS MST
ASCENSION NO. 120

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOPOTENTIAL ALTITUDE DECAMETERS	WIND DATA DIRECTION DEG (TN)	SPEED MPS	N-S MPS	E-W MPS	TEMPERATURE DEW PT DEP DEG C	AIR DEG C	PRESSURE MILLIBARS
2668.	80.	9.	-2.	-9.	99	-44.6	2.000+1
2520.	103.	11.	3.	-11.	99	-48.4	2.500+1
2401.	102.	10.	2.	-9.	99	-51.5	3.000+1
2217.	52.	4.	-2.	-3.	99	-56.1	4.000+1
2075.	207.	2.	2.	1.	99	-58.4	5.000+1
1952.	133.	2.	1.	-1.	99	-62.0	6.000+1
1867.	331.	3.	-3.	2.	99	-65.5	7.000+1
1786.	268.	9.	0.	9.	99	-67.3	8.000+1
1651.	246.	18.	7.	16.	99	-63.5	1.000+2
1512.	256.	21.	5.	21.	99	-58.9	1.250+2
1396.	255.	22.	6.	21.	99	-56.3	1.500+2
1299.	242.	23.	11.	20.	99	-61.7	1.750+2
1216.	239.	28.	14.	24.	99	-58.4	2.000+2
1073.	229.	23.	15.	17.	99	-49.2	2.500+2
951.	218.	21.	16.	13.	07	-39.2	3.000+2
843.	224.	16.	12.	11.	07	-30.3	3.500+2
747.	221.	10.	8.	7.	02	-23.5	4.000+2
659.	206.	10.	9.	4.	02	-17.6	4.500+2
580.	200.	9.	8.	3.	19	-12.5	5.000+2
506.	206.	7.	7.	3.	07	-6.6	5.500+2
437.	216.	6.	5.	4.	03	-2.1	6.000+2
373.	231.	5.	3.	4.	06	3.6	6.500+2
312.	210.	4.	4.	2.	10	9.5	7.000+2
254.	199.	5.	4.	2.	14	15.0	7.500+2
199.	190.	6.	6.	1.	18	20.4	8.000+2
146.	180.	4.	4.	-0.	23	25.8	8.500+2